

September 23, 1996

**MEMORANDUM**

**TO:** Orville D. Green, Assistant Administrator  
Air & Hazardous Waste

**FROM:** Martin Bauer, Chief  
Air Quality Permitting Bureau

**SUBJECT:** Issuance of Tier II Operating Permit #075-00002 to  
American Fine Foods (Payette)

**PURPOSE**

The purpose of this memorandum is to satisfy the requirements of IDAPA 16.01.01 Sections 400 through 406 (Rules for the Control of Air Pollution in Idaho) for issuing Operating Permits.

**PROJECT DESCRIPTION**

This project is for the issuance of a Tier II Operating Permit (OP) for the American Fine Foods facility located in Payette, Idaho, in order to establish the facility as a synthetic minor source. Emission point sources existing at the facility are as follows: two (2) boilers, four (4) drying ovens, and two (2) lacquer stacks. Fugitive emission sources found at the facility are uncaptured coating and solvent volatile organic compounds and hazardous air pollutants, and paved roads.

**SUMMARY OF EVENTS**

On December 11, 1995, DEQ received American Fine Foods' Tier II OP application. On May 28, 1996, the application was declared complete. On July 29, 1996, a proposed Tier II OP was issued for public comment. The public comment period was held from August 15, 1996, through September 13, 1996. No comments were received.

**RECOMMENDATIONS**

Based on the review of the OP application, applicable state and federal regulations concerning the permitting of air pollution sources, and public comments, the Bureau staff recommends that American Fine Foods, in Payette, be issued a Tier II OP #075-00002. Staff also recommends that the facility be notified in writing of the obligation to pay permit application fees for the Tier II permit.

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cc: J. Palmer, SWIRO  
OP File Manual  
Source File  
COF

July 29, 1996

MEMORANDUM

To: Brian R. Monson, Chief  
Operating Permits Bureau  
Permits and Enforcement

From: Darrin A. Mehr, Air Quality Engineer *DM*  
Operating Permits Bureau  
Almer B. Casile, Air Quality Engineer *ABC 7/29*  
Operating Permits Bureau

Through: Susan J. Richards, Air Quality Permits Manager *SJR*  
Operating Permits Bureau

Subject: Technical Analysis for Proposed Tier II Operating Permit #075-00002  
American Fine Foods (Payette)

Purpose

The purpose for this memorandum is to satisfy the requirements of IDAPA 16.01.01 Sections 400 through 406 of the Rules for the Control of Air Pollution in Idaho (Rules) for issuing Operating Permits.

Facility Description

American Fine Foods' Payette, Idaho, facility consists of a specialty foods canning plant and a can manufacturing plant. The canning plant has been operating since 1918 and produces specialty items, such as stews and sauces. Canning equipment consists of process tanks, blenders, retorts, canning and packaging machines. Emissions from these sources are stated as not significant.

Other emission sources include two (2) natural gas-fired boilers, rated at 25.1 million British Thermal Units per hour (MMBtu/hr) and 20.9 MMBtu/hr, and a small package printing operation.

The can manufacturing facility is comprised of two can body manufacturing lines (Can Line 1 and Can Line 2), three can end press lines, and a can palletizer. Emissions of regulated air pollutants occur from the coating of each can body's interior side seam and the can ends, and the oven drying of the coating. Fugitive emissions occur from the use of solvents.

Emission point sources include one lacquer stack and two oven stacks for each of the two can manufacturing lines. Maximum rated production capacity is set by the physical bottleneck in the process. This occurs at the can testers, and effectively limits the can manufacturing plant to a capacity of 500 cans per minute for each of the two lines, or 60,000 cans per hour for the can manufacturing plant. Can ends are punched and coated prior to assembly with can bodies and are utilized for the on-site canning operation or are transported to other American Fine Foods facilities.

Project Description

This project is for the development of a Tier II Operating Permit that will create state and federally enforceable limitations on the facility's potential to emit hazardous air pollutants (HAPs) and criteria pollutants below the Tier I major facility thresholds. This permit would make the facility a synthetic minor for glycol ethers and volatile organic compound (VOC) emissions.

The Permittee has requested facility-wide emission limits on both glycol ethers and VOCs. These are the only pollutants identified by the Permittee to be emitted above the major facility thresholds, and thus, are the only pollutants emitted by the facility that will be addressed with specific limitations in the Tier II Operating Permit.

Table 1: Facility Potential to Emit Regulated Air Pollutants Prior to Permitting

Criteria Pollutants	Potential to Emit (T/yr)	Requested Emission Level (T/yr)
Volatile Organic Compounds (VOCs)	109.22	65.0
Nitrogen Oxides (NOx)	28.23	N/A
Sulfur Oxides (SOx)	0.12	N/A
Carbon Monoxide (CO)	7.06	N/A
Particulate Matter (PM) / (PM-10)	2.76	N/A
Hazardous Air Pollutants		
Aggregated HAPs	20.68	N/A
Glycol Ethers	14.14	8.5
n-Hexane	3.12	N/A
Methyl Ethyl Ketone (MEK)	2.73	N/A
Cumene	0.22	N/A
Phenol	0.15	N/A
Methanol	0.10	N/A
Toluene	0.02	N/A

Where: "N/A" means Not Applicable. No emission limits will be set for these pollutants.

"T/yr" means tons per year.

#### New Source Review Issues

The Permittee's submittal listed the date of initial construction or last modification as 1989. Additional information received during a meeting with a representative of American Fine Foods placed the date of initial construction as September, 1988, and the date of initial production as November 11, 1989. The construction of the can manufacturing plant constitutes a modification as defined by IDAPA 16.01.01.006.57 of the Rules for the Control of Air Pollution in Idaho (Rules). The facility was a grandfathered source prior to this modification, according to the Permittee. Potential emissions of VOCs, attributed solely to the can manufacturing plant's operation, exceeded the 40 ton per year (T/yr) significant emission level established by IDAPA 16.01.01.006.60 of the Rules. There are no areas within Idaho that are designated "nonattainment" for ozone formation, so no ambient air quality impact analysis for VOCs was performed. Toxic Air Pollutants (TAPs), as regulated by IDAPA 16.01.01.585 of the Rules, were not regulated under any formal DEQ policy when the Can Lines were constructed. Therefore no TAP analysis to establish allowable glycol ethers emissions is required.

#### SUMMARY OF EVENTS

On December 12, 1995, DEQ received American Fine Foods' Tier II Operating Permit application. On January 11, 1996, DEQ sent American Fine Foods notice that it had failed to pay registration fees for 1993, 1994, and 1995, and that review of the application would cease until DEQ received payment. On March 6, 1996, received American Fine Foods' payment for 1993, 1994, and 1995 registration fees. Review of the application commenced on that date.

On April 5, 1996, the application was declared incomplete, and additional information was requested. American Fine Foods submitted the requested information on April 22, 1996, and provided certification on May 24, 1996. On May 28, 1996, the application was declared complete.

A public comment period has been scheduled for the proposed permit.

#### DISCUSSION

##### 1. Emission Estimates

Emission estimates and supporting documentation were provided by American Fine Foods in the December 12, 1996 submittal. Emission estimates were based on the VOC and HAP contents from Material Safety Data Sheets (MSDS) and the maximum rated capacity of the can manufacturing plant equipment. Emission factors were generated for VOCs and glycol ethers on a production basis (number of pounds of pollutant emitted per number of cans manufactured). Emissions limits are based on worst case assumptions, as all VOCs and glycol ethers in the coating materials are assumed to be emitted to ambient air as either a fugitive or stack emission.

Different coating products are used for the can end coating and the can side seam coating. Each product has different amounts of VOC and HAP constituents. A combined emissions factor was created for VOC emissions and another for glycol ethers emissions. Both emissions factors are based on material balance utilizing the 1994 production documentation and the 1994 coatings and solvents use inventory. The allowable emissions requested by the Permittee incorporate an additional five percent (5%) factor of safety in the emissions factors for glycol ethers and VOCs. Can end manufacturing does not create any glycol ether emissions, but does account for an additional ten percent (10%) production of the total number of can ends to account for damage replacement. Therefore, VOC emissions from can end production equate to 2.2 times the total number of can bodies, which allows for some additional flexibility.

Table 2: Coating Materials Regulated Air Pollutant Contents

##### Can Body Interior Side Seam Coating

Material	Content (weight %)
VOCs	42.5
Glycol Ethers	27.8

##### Can End Coating

Material	Content (weight %)
VOCs	43

Basis for Permit Emission Limitations

The allowable emissions are slightly higher than the level of emissions based on rated equipment capacity, requested material throughputs, and the emission factors developed by the Permittee. The Permittee has requested a margin of safety (approximately 5%), which is allowable because it does not encroach on either the VOC or HAP emission major facility threshold. Compliance with the allowable emission limits will be based on the tracking of VOC and glycol ethers content used in the process, and the number of cans produced.

Allowable emission limits were created by the Permittee using Material Safety Data Sheet (MSDS) and inventory data of past material usage. Worst case assumptions of 100% of VOCs and glycol ethers present in the coating and solvent materials being emitted to ambient air were used by the applicant to establish the production-based emission factors.

The Permittee requested a maximum annual production limit of 300,000,000 can units. A "can unit" consists of one can body and two 2.2 can ends. This level of production provides for an ample amount operational flexibility. Additional flexibility is provided for by using the following: 1) an additional 5% allowance above actuals for VOC and glycol ether emissions, and 2) an additional 10% allowance for damaged can ends, or 2.2 can ends per can body.

The actual emission factors for the VOC and glycol ether emissions are:

VOCs: 412.7 pounds VOCs per million can units manufactured  
Glycol Ethers: 54.0 pounds glycol ethers per million can units manufactured.

The emission factors used to establish short term pound per hour (lb/hr) and annual (tons/yr) permit allowable emission limits are:

VOCs: 433 pounds VOCs per million can units manufactured  
Glycol Ethers: 56.67 pounds glycol ethers per million can units manufactured.

The permit's short term limits will be hourly limits based on the maximum rated capacity of the can manufacturing plant of 60,000 cans per hour, and the permit allowable emission factors listed above. The permit allowable annual emission limits are based on the permit allowable emission factors and a total annual production level of 300,000,000 cans per year, as listed in Table 3 below.

Table 3: Facility Allowable Emissions

POLLUTANT	Allowable Emissions (lb/hr)	Allowable Emissions (T/yr)
Volatile Organic Compounds (VOCs)	26.0	65.0
Individual Hazardous Air Pollutants (HAPs): Glycol Ethers (unspecified)	3.4	8.5

Where: "T/yr" means tons per year  
"lb/hr" means pounds per hour

### Compliance Demonstration

The Permittee will verify compliance with the permit emission limits by tracking the actual content of VOCs and glycol ethers in the materials used on an as-received basis. This information is readily available from the manufacturer's MSDS sheets. Tracking this information is required to verify that the emission factors used to develop the emission limits are valid. A twelve (12) month production limit of 300,000,000 cans will be met by the Permittee. Daily tracking of the can production (finished cans consist of one body and two ends) will be recorded and compiled on a monthly basis. The monthly totals will be summed for a twelve (12) month period and compared against the 300,000,000 can twelve (12) month production limitation.

### 2. Modeling

No modeling was performed to assess the ambient air quality impacts of this facility with regard to VOC or glycol ether emissions.

### 3. Area Classification

The American Fine Foods Payette facility is located in an area designated as attainment or unclassifiable for all criteria air pollutants.

The facility is located in AQCR 63, Zone 11.

### 4. Facility Classification

The facility is not a designated facility as defined by IDAPA 16.01.01.006.25 of the Rules.

The facility is classified as an A2 source due to potential VOC emissions exceeding 100 tons per year (T/yr), and the Tier II OP will limit potential emissions below 100 T/yr. Therefore, actual emissions will be less than 100 T/yr for all criteria pollutants.

### 5. Regulatory Review

This operating permit is subject to the following regulatory requirements:

a.	<u>IDAPA 16.01.01.200</u>	Permit to Construct;
b.	<u>IDAPA 16.01.01.401</u>	Tier II Operating Permit;
c.	<u>IDAPA 16.01.01.403</u>	Permit Requirements for Tier II Sources;
d.	<u>IDAPA 16.01.01.404.01(c)</u>	Opportunity for Public Comment;
e.	<u>IDAPA 16.01.01.404.01(c)(v)</u>	Consideration of Comments and Final Action;
f.	<u>IDAPA 16.01.01.404.04</u>	Authority to Revise or Renew Operating Permits;
g.	<u>IDAPA 16.01.01.406</u>	Obligation to Comply;
h.	<u>IDAPA 16.01.01.470</u>	Permit Application Fees for Tier II Permits; and
i.	<u>IDAPA 16.01.01.650</u>	General Rules for the Control of Fugitive Dust.

### FEES

Fees apply to this facility in accordance with IDAPA 16.01.01.470 of the Rules. The facility is subject to permit application fees for Tier II permits in the amount of five hundred dollars (\$500.00).

Upon issuance of this Tier II Operating Permit, the facility will no longer be subject to registration fees required by IDAPA 16.01.01.525 of the Rules.

**RECOMMENDATIONS**

Based on the review of the Tier II Operating Permit application materials and of applicable State of Idaho and federal regulations concerning the permitting of air pollution sources, the Bureau staff recommends that American Fine Foods, located in Payette, Idaho, be issued a Tier II Operating Permit for the sources that exist at the facility. An opportunity for public comment on the air quality aspects of the proposed permit shall be provided as required by IDAPA 16.01.01.404.01 of the Rules. Staff also recommends that the company be notified of the Tier II permit application fee in writing.

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cc: J. Palmer, SWIRO  
Source File  
COF

September 23, 1996

MEMORANDUM

TO: Dave Sande, Accountant Supervisor  
Support Services

FROM: Almer Casile, Air Quality Engineer<sup>ABC</sup>  
Air Quality Permitting Bureau  
Operating Permits  
Air & Hazardous Waste

SUBJECT: Permit Application Fees for Tier II Permit

The following facility has been reviewed for compliance with IDAPA 16.01.01.470 "Permit Application Fees for Tier II Permits":

American Fine Foods, Incorporated

American Fine Foods, Incorporated, a food processing and can manufacturing plant, currently located in Payette, Idaho, applied for a Tier II Operating Permit for the sources that exist at the facility. DEQ has released the facility's proposed Tier II Operating Permit. According to IDAPA 16.01.01.470, the facility is subject to permit application fees for Tier II Permits of:

Five Hundred Dollars and No Cents (\$500.00)

The contact and mailing address for the above facility is:

PERSON CONTACT: Jamie Griffin  
COMPANY ADDRESS: P.O. Box 460  
Payette, Idaho 83661

ABC:jrg-c\...\americanp.FEE

cc: S. Richards, DEQ  
J. Palmer, SWIRC  
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